

### **ABSTRACT OF THE INVENTION**

A positioning stage system for precise and accurate movement of an article in an electron beam lithography system. The positioning stage system includes a support platform for supporting the article, an X-direction linear motor coupled to an X-member, a Y-direction linear motor coupled a Y-member, and a slide attached to the support platform and slidably engaged to the X-member and the Y-member. The X-member and Y-member, upon actuation of the X-direction and Y-direction linear motors, cause the support platform to move in an X-direction and a Y-direction, respectively.

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